LETTERS

Major Checkpoint Hurdle: Not Enough Soldiers

Dear Sir:

In his article, "Force Protection for Checkpoint Operations" (Sep-Oct 97), 1LT Milligan addressed the TTP utilized by his unit during checkpoint operations in Bosnia-Herzegovina. I would like to add a few additional points about checkpoints overall that I encountered in 1996 as the commander of TM A/2-68 AR assigned to TF 2-6 IN (LA Pat, Tisca, Srpska) and TF 2-68 AR (LA Linda, Olovske-Luke, BH). As a team commander, I had three tank platoons and two Bradley platoons.

Checkpoint operations are extremely difficult for a tank company to undertake. I assigned checkpoint operations as platoon missions for 10 days duration, after which they rotated to a new mission. The platoons rotated missions between checkpoint operations, guarding the base camp, guarding the brigade HQ, providing a reaction force for Tuzla Airfield, and conducting other missions within the zone of separation. With the number of missions being conducted, I could not use a larger force than a platoon on the checkpoint. When available, I also rotated soldiers out of the headquarters platoon onto the checkpoint. Their normal job was manning the TOC within the base camp, performing maintenance, and doing details for the first sergeant, the "sheriff" of the base camp. My executive officer had the task of running the base camp.

Four tanks and eight men, as a minimum, were required to man a permanent checkpoint on a straight road; two men were dismounted on each entrance gate and one man was in a tank turret overwatching. Radio watch was established in one tank, and the platoon leader and platoon sergeant rotated as OIC of the checkpoint. The fourth tank was available to reinforce either gate should the need arise. This required that 50 percent of the strength of a fully manned tank platoon be on duty at any one time. If not augmented, this amounted to shifts of 12 hours on, 12 off. During those 12 hours "off," maintenance on personnel, equipment, and the checkpoint was performed. Filling sandbags was a never-ending task. Maintenance of the perimeter lighting was also a constant issue. We had a mixture of Army and Air Force floodlights which required different types of fuel. The one generator mechanic within the task force was kept busy giving classes and licensing soldiers to operate the varied lights.

A technique I used to give more resources to the platoon on the checkpoint was task-organizing within platoons, producing a platoon of two tanks, two Bradleys, 14 crewmembers, and a squad of infantry. The infantry squads provided the additional manpower needed at the checkpoints. They also added additional communications assets (PRC-126 radios) and individual firepower (a tank platoon has only four M16 rifles and no M203 grenade launchers). Though four tanks were on the checkpoint, their overall firepower was

mainly psychological. With only one person on board, the loader's M240 MG was the most responsive weapon to use.

Resupply of the checkpoint was accomplished during daily movements to the task force headquarters or by patrols passing through. We were very limited in options due to the rule of moving in four-vehicle convoys. With only two HMMWVs in the company, my convoys always included HEMTTs or the 5ton tractor that moved the mine rollers. Another resupply COA was to have the civilian contractor, Brown and Root, deliver items for us. They made daily, predictable, and reliable stops in each base camp delivering supplies, picking up garbage, etc. The majority of these men were ex-military and were glad to help by dropping off spare parts, an extra can of mogas, or whatever was needed.

> RANDALL L. KOEHLMOOS CPT, Armor Student at the Pakistani CGSC Quetta, Pakistan

Who Is This OPFOR That We Plan to Fight?

Dear Sir:

In our current era of shrinking budgets I am struck by the level of training in evidence at our training centers. Our leadership is on Capital Hill explaining to Congress the training level of units in the field, but nearly half of the training we conduct at our training centers goes to "waste." I am referring to the training dollars, time and opportunities that are used by the OPFOR.

As an O/C, I watched as BLUEFOR units struggled through basic maneuvers that the OPFOR executed with ease. Changes of formation, changes of plan, fire and maneuver etc. are executed well by the OPFOR but the BLUEFOR had trouble with these basics. I remember that, as a lieutenant, my unit would deploy to the CMTC where we would serve as OPFOR. This was some of the best maneuver training that I have ever experienced. My unit would conduct the orders process and execute missions over and over again. After a month we were well honed on maneuver fundamentals. This was all done in a low stress environment where the focus was on getting better. Currently in USAREUR, 1/15 of the maneuver battalions/squadrons, the OP-FOR, does 1/2 of the training. The OPFOR cannot and will not deploy to any hot spot anywhere in the world.

The arguments against using a "rental" OP-FOR include a lack of a doctrinally correct force, if there is such a thing anymore. I would argue that no potential enemy in the world is capable of fighting with OPFOR "doctrine." We have become fixated on an OPFOR doctrine that is not executed by anyone but us. As a BLUEFOR unit LDs on a movement to contact, it looks a lot like an OPFOR MRB to me with the forward security element.

advance guard etc. BLUEFOR commanders even use OPFOR terms to describe their formations. The Russians were not using OPFOR doctrine when they floundered around in Chechnya. The Iraqi's used a combination of doctrines in their battles. The Chinese lack the level of mechanization, the Korean terrain precludes the use of OPFOR doctrine and many of the Middle Eastern countries use whatever makes sense. Who is this OPFOR that we plan to fight/train against?

Another argument against a non-permanent OPFOR is that they would lose as many battles as the BLUEFOR and the real training value would be lost. Speaking from experience, I can say that my brigade only lost one battle that I can remember during a three-task force rotation. The reasons are simple. The OPFOR is well rested. The OPFOR has more time for maintenance. The OPFOR has no supply problems. Bottom line, a well-rested OPFOR that is doing its orders process, maintenance, and logistics in the rear will have an advantage. Who knows, maybe more of our units will make it on to the objective against a non-permanent OPFOR and actually have an opportunity to train actions on the objective?

Some quick math shows that we could crew the vehicles of an MRR with a TF(-). Add an engineer company and an Active or Reserve Infantry company and you have an MRR. Some interesting missions could be devised which would attach an "OPFOR" MRB to the BLUEFOR as a combined force. This would allow brigade commanders to plan for and control three battalions. Consider the fratricide awareness which would have to go into the planning. Probably a good exercise for future fratricide prevention.

Another option is to go force-on-force. Lots of good training could occur that would benefit both sides. The side defending would have an advantage that could be mitigated with extra combat multipliers for the attacking force. This technique would result in 100 percent of the training being conducted by units that will deploy to fight and win America's wars with the equipment and personnel assigned.

These are just a few ideas to help maximize our training dollars and opportunities. I appreciate being able to discuss this in a professional forum.

MARK H. SALAS CPT, Armor Deputy Chief Plans and Exercises CMTC

Armor/Cav "Generalists" Cannot Master Either Trade

Dear Sir:

I just finished re-reading COL Hertling's article on "Managing Career Progression in a Smaller, Higher Tempo Army" (which appeared in the Nov-Dec 97 issue) and have

some comments which I feel are worth sharing.

Let me start off by saying COL Hertling's comments provide valuable insight into the machinations of Army-think in general and PERSCOM in particular. It is always nice to know about what goes on in various Army agencies, especially those which have an impact on the careers of countless officers, and COL Hertling has done Armor branch a service by sharing his experiences.

However, I take issue to his comments about alternating assignments between Armor and Cav units. In his article, COL Hertling states, "One of the programs that is a priority concerns mixing the armor and cavalry experiences of young officers; we attempt to avoid 'single tracking'... If an officer had served in a Cavalry unit ... while a lieutenant, Branch attempts to ensure a tank assignment..." and concludes the paragraph by saying failure to do so (i.e. 'single tracking') "... hurts our branch and stunts the professional growth of the officer" (p. 48).

Well sir, I've "further analyzed" my "rationale" and I still disagree. Allow me to explain. The troop/company commander should (must!) be the subject matter expert on everything in his unit. By this I mean not just doctrine — although that's a good start — but the master of all technical and tactical subjects in his troop/company, to include but not limited to gunnery of the appropriate weapon(s) (small arms also), tactics, leadership, doctrinal and unconventional missions, and so on. While our current military schooling system gets officers on the right footing, it takes years of practice and hard work to make an officer the expert he needs to be before being given command. For these reasons, to take an officer with 3-4 years of being a tanker and then put him in charge of a cav outfit (or vice versa) is both unfair to the officer and the men he will command. By doing so, we fall into the trap of using soldiers as training aids in order to develop an officer who is a generalist. Having competent, confident company and battalion-level commanders is essential to success on the battlefield. This does not happen when officers are bounced around in "alternating assignments."

There is a larger issue here, and that is whether an officer should be a "generalist" or a "specialist." In the American Army, conventional wisdom is that officers should be generalists. That is, an officer should be a guy with some troop time, staff time in a TO&E unit, experience in a functional area assignment, time in a TDA unit, and so on. It is this rationale which generates the "priority" of avoiding "single-tracking." I seriously question the wisdom of this decision.

The complexity and tempo of the modern battlefield leave little room for generalists. Time spent performing "functional area" assignments, for example, is time that could be spent instead perfecting the officer's abilities in the art and science of warfare. The Army needs people for program management? Fine. Make it a civilian job and free up an officer who can attend a TO&E unit or training

school assignment instead. Is the problem that the Army has created administrative slots for officers out of an act of political patronage so that those not assigned to TO&E units can reach the 20-year mark, and now needs bodies to fill and justify these positions? Is the tail wagging the dog? I don't know. I do know that the Army needs officers to lead men in battle.

The best and most comprehensive solution I've seen to this devilish problem was one put forward by MAJ Vandergriff in the Mar/Apr 97 issue of *ARMOR*. In his article, MAJ Vandergriff identified the key techniques of success used by armies around the world with respect to how they grow and develop officers, and then put forward a number of excellent recommendations as to how we can adopt similar techniques in our Army. His proposal addresses many of the issues discussed by COL Hertling, and more. (I certainly think the article is worth a reprint!)

Allow me to conclude by saying this: If I was a tanker in a tank battalion, I wouldn't want to serve under a company commander whose practical experience was limited to doing recon in Hummers. Would you?

1LT ANDY GOLDIN 1-158 Cav, 29ID (Lt) MDARNG

(If this letter was of interest to you, we suggest you read 'Military Leadership into the 21st Century: Another "Bridge Too Far?" by LTG (Ret.) Walter Ulmer in the Spring edition of PARAMETERS. - Ed.)

Breaching Fix Is On the Way With Engineers' Grizzly Program

Dear Sir:

The following addresses concerns expressed by MAJ Morningstar in his article, "Points of Attack: Lessons From the Breach" in the Jan-Feb 98 ssue of ARMOR. The GRIZZLY (popular name), or M1 Breacher program, is designed to specifically address obstacle breaching with a single asset and crew. This new vehicle is influencing the thought process with Army digitization and updating of breaching doctrine via FM 90-13-1 (Combined Arms Breaching Operations). Specifically, to allow GRIZZLY with its crew battle drills to replace what has been termed by Engineers and the maneuver force alike -"a ballet of farm implements" in the conduct of breaching operations. A Combined Arms breach will still be required. The breach fundamentals of Suppress, Obscure, Secure, "then" Reduce (SOSR) remain essential for SUCCESS

With GRIZZLY, command and control is simplified and time for breach training and rehearsals are reduced.

The doctrinal differences between a "deliberate breach" and a "hasty" or "in-stride" breach will diminish. In support of the Army's Digital Corps and Division, the U.S. Army En-

gineer School's GRIZZLY program is its number one priority and a major Army acquisition program. It is extremely important to the Corps of Engineers that it actively supports Army Vision 2010 with the means to exploit information dominance (i.e., operational mobility). Freedom of mobility and maneuverability on the future battlefield cannot be assured. The current deficiency in mobility capability, if left unchecked, will diminish maneuver force combat power and force projection. The Digital Corps and Division must be fielded as a "package" to ensure a holistic approach to execution of Army Vision 2010 and Force XXI. It is imperative that the Engineer piece of the Digital Force is fielded as close to the fielding sequence as the rest of the combat arms elements (i.e., M1A2 SEP, M2A3, C2V, PALADIN, CRUSADER, etc.) which will make-up this force. Details on the GRIZZLY program and what it will do for the Maneuver Force are in the February 1998 issue of Engineer Magazine, in an article titled "The Grizzly: Mobility Support for Force XXI" by LTC Kotchman, LTC Greene, and Mr. Glasow. Engineer Magazine and this article can be viewed on the Internet at:

www.wood.army.mil/ENGRMAG/emag_hp.htm

ALAN LEE TSM-CMD

German Veteran Enters Debate On Vosges Campaign in WWII

Dear Sir:

In 1992, when I started occupying myself with research on the last major German operation of World War II in the Western Theater, codenamed NORDWIND (in which I participated as a young German officer, equivalent to a U.S. battalion executive officer), my written American sources consisted of regimental and divisional histories of rather differing substantial value. Later on, my sources included "Riviera to the Rhine," the official U.S. Army history narrative by J.J. Clarke and R.R. Smith, and even more recently such primary source documents as de-classified operation and intelligence journals and reports by the participating U.S. Army divisions and regiments.

This was all I had to work with until 1995, when one of my American co-veterans of NORDWIND (Mr. Hyman Schorr of NYC) made me aware of a new publication: When the Odds Were Even by Keith E. Bonn. This book offered a scholarly approach to the issue, including in-depth studies comparing operational and tactical doctrine of both opposing forces, and an evaluation of how these forces adhered to their doctrine during the Vosges Campaign, ending with NORDWIND. This was much more than the usual chronology of events and roster of participants I was accustomed to deriving from reading American treatises on military history. To me, it proved also that the younger generation of

Continued on Page 54

LETTERS (Continued from Page 4)

American military historians was willing and capable of making exhaustive use of German primary source documents, which for Lieutenant Colonel Bonn was not difficult: I soon learned that he has a full command of the German language. In short, I gained much from studying *When the Odds Were Even*, and in a way more than from many other titles: it offered my studies new avenues of approach, making my understanding much more comprehensive.

After reading the review by Captain K. W. Farrell, I must admit being fully unprepared for his negative verdicts; for a while, I even suspected we had read different books.

Bonn is certainly outspoken, but I fail to detect "emotionally charged rhetoric," a "shrill tone," or "spite" in his writing — and that is not because of a low level of linguistic comprehension on my part: I pride myself of being capable of reading and understanding English well enough to fully appreciate the fine points of your language.

Also, I am at a loss to understand why it should be a sacrilege to criticize historians for their theories only because they are dead, or because they are university professors. And as to "amateurish": I had not known that the famous University of Chicago was notorious for accepting amateurish Ph.D. theses.

Finally, I must disagree strongly with the reviewer that the Volksgrenadier-Divisions (VGDs) were "the brainchild of Heinrich Himmler." This is quite impossible as they were conceived long before Himmler became Befehlshaber des Ersatzheeres (Supreme Commander of the Replacement Troops) in the wake of the 20 July 1944 assasination plot, the last attempt to assassinate Hitler.

Actually, it was Hitler's would-be assassin, Colonel Clauss Graf Schenk von Stauffenberg, who should rightly be called the "architect" of the VGDs: it was this function that gave him access to Hitler, where he appeared at the conference table on that fateful day to brief him on the progress of his mission: to form the new VGDs.

WOLF T. ZOEPF formerly of 3rd Battalion, SS-Mountain Infantry Regiment 12 "Michael Gaissmair" 6th SS-Mountain Division NORD

Author Replies to Review Of WWII Campaign Account

Dear Sir:

I have waited a long time — almost four years — for someone to negatively review When the Odds Were Even in writing. Its premise is, after all, somewhat inconsistent with what many believe to be gospel about the comparative fighting qualities of the American and German armies in WWII. Further, as reviewer Farrell points out, the book has indeed "received favorable coverage within military history circles," so I've waited for the other boot to fall. Admittedly, I was

hoping that whomever chose to criticize the book in a public forum would demonstrate a firm grasp of the book's argument, and be able to debate the facts. Unfortunately, the reviewer did neither.

First, the reviewer somehow missed the premise of the book — made clear in each chapter, but perhaps most succinctly stated in the conclusion. In the Vosges Mountains, between 15 October 1944 and 15 January 1945, under conditions of numerical parity, the U.S. Seventh Army prevailed due to "Superior training, organization and execution of doctrine." (p. 229) It would have been useful to debate this, rather than be forced to point out the fallacy of the tangential issues he chose to conjure.

Hopefully, many of Farrell's misrepresentations stem from a dim or incomplete comprehension of the text. The alternative explanations are pure intellectual dishonesty or worse. For example, on pages 1 and 2, I expressed alarm at the tendency of "certain military reformers to justify recommendations that the contemporary U.S. Army should discard its own uniquely evolved institutions and doctrines and instead simply imitate the Wehrmacht. Not only is such abuse of history invalid from an academic standpoint, it is also dangerous from a political and philosophical standpoint." So, if you are one of the military reformers who believes this - perhaps one who makes your officers sing songs to the tune of Panzerlied at dinings-in, or makes your men wear SS Death's Heads on their unit PT shirts, or wants to do away with divisions and call their replacements "combat groups" (a precise English translation of the German term Kampfgruppen) then I believe that you are doing something that is dangerous... and wrong and disgusting, too. All of these things have been done by certain officers in the Regular Army within the last five years, and you know who you are.

Neither the late Colonel Trevor Dupuy nor Professor Martin van Creveld do these sorts of things, however, nor did I say they did. What I said on page 3 was, "The ammunition supplied to these reformers sometimes takes the form of perfectly valid historical work, used in an obtuse and biased manner, but more often consists of shoddy comparative historical efforts." Later (pages 6 and 7), as an example of the former instance, I cite the logic problem from which some of Dupuy's work suffers (this was actually originally pointed out in a SAMS paper by a currently serving colonel, and I documented it accordingly on page 7.). This does not amount to "castigating" Colonel Dupuy, nor does it constitute "shrillness" about his post hoc ergo propter hoc logic error, nor does his death somehow make his ideas sacrosanct. On page 7, I point out the historically invalid nature of Martin van Creveld's Fighting Power, I refer to his historical assertions (not him personally) as "bizarre," as indeed they are. I provide a specific example, i.e. that, contrary to van Creveld's insistence, "no U.S. combat divisions used pigs, bees, monkeys, centipedes or belligerent dogs" for their unit insignia. Van Creveld says they did on page 46 of Fighting Power, and he is completely wrong — weirdly so — hence they are *bizarre*. I could choose any one of dozens, perhaps hundreds, of examples of categorical untruths from this book, but I chose to only mention one — this is hardly "shrill." Thus, I do *not* "admonish [Dupuy and van Creveld] of the dangers of their political and philosophical perspectives," as Farrell insists, but rather *do* admonish those who use their faulty arguments as a basis to recommend reform of the U.S. Army... like the guys with the Death's Heads, or the singers of ze old songs, or the Phalanx breakers mentioned above. This is certainly not "outrageous."

"Outrageous" is when an officer on the faculty of the citadel of "respect for others" refers to the style of another officer's book as "spiteful and amateurish," and then proffers a nearlie to justify this harsh criticism. The reviewer refers to my "simplistic and sloppy repeated references to foreigners serving in the Wehrmacht as 'turncoats' " to support this insult. First, it is only a near-lie rather than an outright one, because I did indeed use "turncoat" repeatedly - exactly twice in 294 pages. On page 50, I referred to Ukrainian and other Russian prisoners who voluntarily served in the Waffen SS as turncoats — what else were they? They fought against the Germans in the defense of their country, and then volunteered to serve the very nation that conquered their country and whose minions murdered thousands of their citizens in the process. (Even in this instance, I qualified my assertion with the word "most," as I recognize that some may have been forced to serve.) On page 222, I used the expression again, as part of my conclusion.

The closest I came to using "turncoat" anywhere else in the text was on page 192, when I referred to Norwegians who served in the 6th SS Mountain Division as "traitors." Interestingly, the only other person who has criticized this usage (and he had the courtesy to do it in writing, to me personally) was a German ex-SS NCO, who expressed the (literal) Party line that these men were not traitors, but actually the far-sighted avant garde of the modern pan-European cultural and political movement. Perhaps this is closer to the reviewer's opinion.

The assertion is also close to a lie because anyone who actually read all of When the Odds Were Even knows that I extensively discussed the issue of foreigners in the Wehrmacht, and absolutely did not characterize them all as "turncoats." In fact, on pages 50 and 51, I discuss in detail the cultural, language and political problems associated with attempts to integrate Volksdeutsche soldiers into other units with Reichsdeutsche cadres.

The reviewer states that I "undercut my own position" with the "notion that the opposing units in the Vosges were comparable in morale and capability." Since I specifically and repeatedly insist that American morale was generally better than that of the Germans, and that American doctrine and practice was far more effective in the maintenance of appropriate morale, it is difficult to understand this assertion. Further, one of the main points

of the book is that, due to better organization and training, U.S. units were *more* capable — the only German unit in the Vosges I assessed as highly capable was the 6th SS Mountain Division. Rather than "undercutting" my position, these are, in fact, integral to my argument.

The reviewer disputes my assertions of logistical parity by citing the materiel superiority of the U.S. Army overall, in the world. On page 3, I *grant* that such superiority existed in most parts of the ETO, most of the time. *But it didn't exist in the Vosges between 15 October 1944 and 15 January 1945.* The bases of this evidence are examined and documented extensively, throughout the book.

The reviewer sank to pure hypocrisy when he called my work "shoddy," yet promptly chose the "grab bag of history" approach to support his condemnations. He writes about the background of three carefully selected German units that fought in the Vosges, and gives us a great deal of information about their activities elsewhere - most of it completely irrelevant to the campaign in the Vosges. (The stuff he mentions that is relevant is covered in far greater detail in When the Odds Were Even.) He conveniently ignores units such as the 708th Volksgrenadier Division, which entered into battle fresh from training and at full strength, and the 6th SS Mountain Division, which was the most effective, most robust German infantry unit on the Western Front at the time. He states that I provide no support for my assertion that by November, 1944, the 21st Panzer Division "was in the best shape it had been in since the Normandy campaign," and then promptly contradicts himself by identifying the primary intelligence document on which my estimate is based. Besides, the 21st was coming out of a rest and refit period when it moved into the Vosges — most units that have been replenished and reconsistituted are in better shape afterwards (in this case, November of 1944) than they were before (in this case, the summer of 1944), and the 21st Panzer was no exception.

Worse than this embarrassing contradiction, the reviewer is disingenuous when he states that, "the list of units comprising the Allied forces in the October and November campaigns reads like a 'who's who' of great American units," and then describes fewer than half of them, i.e., the 3d, 36th and 45th Infantry Divisions and the 442d RCT. Actually, I am sure that the veterans of the American 44th, 79th, 100th and 103d Infantry Divisions and 14th Armored Division will be happy to hear that they made this "who's who" list... but they may also wonder why Captain Farrell doesn't *mention* them specifically, or explain *their* backgrounds.

These divisions, with the exception of the 79th Infantry, were completely green outfits, straight from the States, the infantry echelons of which consisted mostly of retrained antiaircraft gunners, medium bomber crewmen, and soldiers in low-density MOSs being trained in the Army Specialized Training Program (ASTP), which was abandoned in 1944 to provide more men to the infantry. That these

units could be thrown into the attack in the midst of the most ferocious winter of the century to date, and pry a firmly entrenched, generally more experienced foe from prepared positions in a mountain range which had never before been penetrated by any attacker, ever, would be, well, *inconvenient* for Captain Farrell's purposes. So he does what the editors of *Signal* magazine and the *Völkischer Beobachter* did so well — he purposely ignores them, and hopes potential readers will, too.

The reviewer moves beyond obscuration and near-lies to an abject untruth in his assertions about my silence on the nature of Volksgrenadier divisions. With excruciating condescension, he states that "he is confident that Keith Bonn is aware of the significance of the Volksgrenadier designation," but then states that I do not point out its significance to the reader. In fact, I took great pains to do just this, on pages 46-48. I also point out their organizational limitations again and again thereafter, as they became apparent in each battle.

With his "final word about sources," the reviewer adds a concluding twist to the reality of this book. Stating that I admitted having "difficulty in obtaining sufficient German primary source material" (which I never did), he goes on to write that when I did find them, I dismissed those which expressed a different perspective than the "one I was looking for." This is untrue in every regard. I examined, in person, every single German primary source document about the campaign in the Vosges available, at the German Military Archives, and at the National Archives' Captured Documents Section. Therefore, it is not true that I had difficulty in obtaining German primary source documents. Moreover, here again, the reviewer inaccurately reproduced what I wrote; the German sources to which I was referring in the introduction to the book were not primary source German documents, but published histories, most of which, I noted, were published (largely for the German veterans' benefit) after 1970. In fact, as I note on page 11, some wartime, i.e., primary source, documents, express "more respect for U.S. tactical fighting abilities" than do the writers of their post-war histories.

Contrary to the reviewer's implication, I did not rely on U.S. unit histories for the critical facts of this study. I used post-war U.S. histories (which are NOT primary source documents, by the way) primarily as sources for simple, non-controversial facts, such as dates and times, names and places. As the notes indicate, the historical evidence on which my arguments rest appear overwhelmingly in primary source documents such as German and American unit operations and intelligence journals, field manuals, and American company morning reports. They are supplemented, in the Germans' case, with information volunteered by German officers in captivity immediately after the war — information that was purposely gathered by the U.S. Army to 1) fill the historical hole left by the destruction of most German unit Kriegtagebücher below the corps level, and 2) to learn what lessons could be derived from a competent and brave foe.

More disappointing than missing the point and premise, and even sadder than the insults, near-lies and obfuscations, is that the reviewer never addressed the facts present in this book. Exactly which of the 499 footnotes (174 of them from either contemporaneous German military documents or immediately postwar interviews with German officers) does he dispute? Were the numerical odds even, or not? Were the American units that participated in the Vosges Mountains better trained than their German opponents, or not? Were they more cohesive, or not? Were they more appropriately organized for the execution of their doctrine, or not? Far from a "They won, so they must have been better" argument — which I never made — When the Odds Were Even presents a detailed analysis of the reasons why the Americans won and the Germans lost at the operational level, as well as what each side did well and poorly. In the Vosges Mountains, between 15 October 1944 and 15 January 1945, there were very few things that the elements of Army Group G did better than the U.S. Seventh Army — thus the recommendations to build on our own doctrine and heritage, and eschew that of the less effective, less successful (but ever so much more snappily dressed) Germans. Neither this, nor anything in the book, in any way denigrates the valor of the German soldiers who fought in the Vosges. It simply deglorifies the German Army in this campaign, and explains why they came in second.

Because the reviewer chose to sidestep these issues, "Were the Odds Really Even?" was a misnomer for the title of his review. When someone is ready to really ask this question, and discuss it in view of the facts, I welcome his or her arguments and criticism. This book was not perfect; Vosges veterans have, for example, corrected me on details of the battle for Wingen-sur-Moder, details that did not survive in several primary source documents. Interestingly, one correction, from a former Waffen-SS battalion adjutant, tipped the numerical odds slightly further in favor of the Germans during the NORDWIND offensive; a former American rifleman (later a colonel of infantry) pointed out the success of an incompletely trained American unit (a battalion of the 274th Infantry) that had been falsely claimed in primary source documents by another - one of Farrell's 'who's who' outfits, in fact. I was happy to correct these in the second printing of When the Odds Were Even, and I remain completely open to factual disputation of all types. It is unfortunate that the reviewer chose to do otherwise.

LTC (Ret.) KIT BONN

WWII GIs Faced Shortages Despite Record Production

Dear Sir:

I must take exception to some of CPT Kevin Farrell's contentions in his very detailed review of Keith E. Bonn, *When the Odds Were*

Even (Jan-Feb 98). While you may not normally print comments on reviews, please bear with me.

I do not know author Bonn, nor do I know Farrell. However, as an author (*A Dark and Bloody Ground* — the Hürtgen Forest and Roer River Dams 1944-1945, Texas A&M University Press, 1995), former Armor officer, and ASI 5X (Military Historian), I believe I am qualified to present some additional information on the U.S. Army of 1944-45 to your readers. What follows is not a defense of anyone or anything, especially the faults of the ETO Army. Rather, I want to balance the assertions of both writer and reviewer in the never-ending argument over who was 'best.'

It is troubling that many officers know so much about the German Army of WWII, and so few bother to learn in detail about their own. CPT Farrell's conclusion that the "U.S. Army could stand to learn a few lessons" from the Germans is probably valid, though I wish he'd mentioned a few of the lessons.

For two decades officers have cited historians Martin van Creveld and the late T.N. Dupuy as sources of comparative analysis of the U.S. and German armies. However, these historians present arguments every bit as "shrill" (to use CPT Farrell's words) as Bonn's. Simply put, their conclusions are often weak. They rely too heavily on secondary sources. Van Creveld, especially, presents broadbased generalities not backed by thorough analysis. For example, in Fighting Power, he states that the Army's officer corps was "less than mediocre." He based this conclusion (and many others) on documentation taken out of context. Another source to support a statement about formation of battalion-sized TFs is the index of a volume of the "Greenbook" official histories.

Dupuy's famous mathematical model "proved" the Germans were, man to man, +/-1.5 times "better" than the Gls. However, he included many engagements in which the Gls (88th ID, 45th ID, 26th ID, and others) were in their first days and weeks of battle — no veterans here — not to mention including the U.S. 31st ID in the list. The 31st fought in the Pacific — a typo, one hopes. BG John S. Brown (*Draftee Division*, University Press of Kentucky, 1986) offers an incisive analysis of the shortcomings of Dupuy's Quantified Judgment Model.

When the Germans took on the Americans, they were out of their league. The GI infantryman won the war, but America's ability to generate, deploy and sustain (usually barely sustain) combat power around the world was an accomplishment on a scale incomprehensible to a continental power like Germany. What most American fans of the Wehrmacht do not grasp is that victory was not a 'sure thing,' and that the front-line GI often received barely the materiel he needed. Richard Overy, Why the Allies Won (Norton, 1995) presents a strategic-level argument worth considering.

But the story lies in the details of just what resources the GI had at his disposal. Let's take a look at what CPT Farrell calls America's "extravagant" logistical situation in the ETO. No one can argue that the basic U.S. strategic decision of WWII was to outproduce the enemy. However, only a fraction of that production reached the foxholes of the ETO. Gls were well supplied; unfortunately, much of the extravagance was in ships off France.

CPT Farrell cites "a seemingly inexhaustible supply of M-4 based armored platforms (over 100,000)" as an example. I don't know what his source was, but R.P. Hunnicut's definitive *Sherman* lists acceptances of no more than 59,000 "M-4 based" platforms including TDs and SP artillery. Lend Lease additions to this account for no more than 21,000 more "M-4 based" combat vehicles. Not quite 100,000; in fact, total U.S. production between 1 July 1940 and 31 December 1945 was about 88,000 tanks of *all* types.

Take Sherman tanks: about 50,000 produced. Subtract Lend Lease (about 23,000); those used in the Pacific, Stateside training, for R&D, the Mediterranean; and other models not used by the Army, and one gets a conservative figure of about 8,000 Shermans in U.S. hands in the ETO, including theater reserves. Of these, First Army in April 1945 (at its peak tank strength) reported a daily tank count (including maintenance deadlines) of 1,555. Also, less than half of 1944 U.S. M4 tank production was allocated to the U.S. military. My point here is not to lecture, but to demonstrate the pitfalls of such broad statements by historians unfamiliar with the details of production and logistics.

Critical shortages of mortar and artillery ammunition plagued the Army throughout 1944 and into early 1945. It doesn't matter that much of the required ammunition was in ships off the Norman coast. What matters is that it was not in the hands of the firing batteries. For every 20 battalion TOT which saved a GI, there was another soldier who prayed for fire and received a round or two in support. For example, a 24 October 1944 TOT fired by XX Corps artillery included tanks, TDs, captured German guns, Soviet 76.2mm pieces and 90 mm AA guns. Why? There was not enough howitzer ammunition to fire the mission. On 16 October, all of Third Army fired 794 rounds. First Army's 155mm guns between 15-21 October 1944 (the battle for Aachen), fired an average of only 10 rounds per gun per day. The rate for 155mm howitzers was 15 rounds per gun per day. Only through such conservation did First Army build reserves for its November attack toward the Roer River. Ninth Army data for the October period is incomplete and Third Army fired even fewer rounds - about 1 round per 105mm tube per day. During the November offensive, First Army, was authorized only 36 155mm SP guns, and a single battery of 8 in. guns to reinforce its 105mm and 155mm medium artillery. Finally, documentation, dry reading though it is, abounds on critical shortages of mortar ammunition during the battle of Normandy.

I won't detail the effects of weather on close air support, especially during the stalemate along the Westwall in 1944-45, but I recommend a look at the XX Corps situation during its operations in the Saar-Moselle Triangle in January 1945 for a good snapshot of how much CAS the GIs received on a day-to-day basis.

The Army was hampered by perennial shortages of replacement tank track and engines, truck engines, anti-freeze, tires, medical instruments, overshoes, a 77% operationally readiness rate of his wheeled vehicles in by January 1945, and the list goes on. The ETO failed to provide the GI with adequate winter clothing. Add to this the moral effect of the replacement system and problems with transportation, distribution and port clearance, and one begins to get an appreciation of the conditions facing the GI. Again, this is not to say the Germans had it better than they really did — but the GI's war was not as easy as many believe.

Dig into U.S. PW interrogation reports and G-2 periodic reports to see the state of the German forces through the German's eyes themselves. Historian Omer Bartov offers interesting concepts in *Hitler's Army* (Oxford, 1992). Certainly, anyone would conclude that the German army's successful rebuilding effort and stand at the Westwall indicate that it was a capable force, despite the attrition in the Soviet Union. Many German units, such as the 116th Panzer Division, 11th Panzer Division, Panzer Lehr, 12th Infantry, parachute units, and SS were as formidable in 1944 as any German unit was in 1941.

Again, my point here has been to give your readers something to think about, not to defend the details of a particular point of view. No one would argue with CPT Farrell's discussion of the importance of the Soviet front. However, it's time for rigorous analysis of the U.S. situation as well. Unfortunately, few well-known historians have done it.

EDWARD G. MILLER LTC, Ordnance The Pentagon

Combat Development: Consider the Trade-offs

Dear Sir:

As a former combat developer at Fort Knox, I feel I must correct what appear to be several misconceptions about tank and armored vehicle design I've seen in recent Armor articles. In particular, I've seen a trend of authors describing either the need for, or conceptual descriptions of very small systems that can do many of the things we ask of our tanks today. Unfortunately, the laws of physics conspire to make many of these ideas less than feasible.

To design a future system, you must first identify its mission — what it must do on the battlefield. These requirements come about through the Integrated Concept Team (ICT) process that involves the combat developers, material developers, industry, and others. Once defined, these requirements drive the actual parameters of the materiel solution. In no particular order:

Lethality: What do you want the system to kill? Contrary to some skeptics among us, there are many potential adversaries with large fleets of sophisticated armored vehicles. Ask your S2 for the details, or stop by the DFD Threat Booth at the Armor Conference. If you want a system that can kill a heavily armored target at extended ranges, you need a weapon system capable of generating sufficient energies at the target, with enough accuracy to hit it. Energy requires propellant, either in the form of solids (like we use today), or fuel if using an electric gun, combined with a kill mechanism to do the job at the target. With a suitable basic load of stored shots (or kills, depending on your preference), lethality can be a major vehicle size

Survivability: What do you want the system to be survivable against? If you wish to defeat heavy kinetic or chemical energy munitions, you need either a large amount of heavy armor (like we use today), or some combination of sensors, countermeasures, and armor backup. Remember that your system must be able to catch the residue from whatever other survivability systems you use. To defeat hand held weapons, such as RPGs, you must remember that they are fired from very short ranges, and therefore your system would have only a tiny amount of time to react. All of this adds weight and size to the system.

Mobility: In what environments do you plan on operating? How fast must you go? How long must you go between refueling stops? Long duration operations require large amounts of fuel, regardless of type. High cross country speeds demand heavier suspensions and more powerful engines.

Fightability: What do you require the crew to do? For how long? In what environments? All of these contribute to the crew size and crew station requirements. Even a highly automated two-man crew requires a certain amount of habitable space inside the vehicle, which must be protected. Access to weapons or electronics for repairs or degraded mode operations also drives the crew's space needs

Deployability: How will you get to the fight? In what quantities? With how much sustainment? This requirement is usually seen as a cap on vehicle size and weight. But, consider the requirement to deploy a force, capable of executing certain missions over a defined period of time. This force may have a large number of small vehicles and a large logistical tail, or perhaps a smaller number of larger vehicles that can go longer without sustainment can do the same job, over the same time period — and require fewer sorties to arrive in theater.

Sustainability: How will you support the system? Who repairs it? How is it resupplied? How often? These questions help define the reliability, availability, and maintainability requirements of your system.

Cost: We cannot ignore the question of cost. How much can we afford to pay for the system? How much for a force armed with the system? What about the munitions? Spares? Training devices? The optimum solu-

tion to all the requirements may end up being unaffordable, so some lesser solution may be more desirable if it actually has a chance of surviving the budget process.

These and many other questions are asked, answered, debated, studied, and traded off between the combat developers, design engineers at the Tank-Automotive and Armament Research and Development Command (TARDEC), and other members of the ICT before the actual decision to embark on a specific system design. But in the end, the key to what ends up in the motor pool is the answer to the question "What must this system do on the battlefield?" Technology and innovation help give us the right system to do the job, but they cannot suspend the laws of physics in the process.

MONROE HARDEN MAJ, Armor U.S. Army Safety Center Ft. Rucker, Ala.

TERM-like Munitions And Battlefield Roles

Dear Sir:

This letter contains a few comments on COL Kojro's letter in the Nov-Dec 97 issue, "TERM-like Munitions Detract From Tanks' Direct Fire Role." His suggestion is a worthwhile one: "For study purposes, I suggest computer modeling the battalion heavy mortar platoon. ... You will very quickly be able to quantify any combat multiplier effects of TERM ... However, there can be pitfalls in computer modeling: Is there a reasonably effective model that can be run without great expense? Is that model acceptable to the general military modeling community? Are experts in such modeling techniques available to do the study? How knowledgeable are they in the weaponry being studied? Are these experts unbiased? Will the results be such that mere mortals can understand them? Anyway, modeling would be a good idea if it could be done right. Field experimentation, after the modeling, would be even better, if we could get the Army to spend the money on hardware for evaluation.

Now a few words about the roles of artillery and tanks, and their unique characteristics. Artillery, in the past, was not considered to be very effective against tanks. Tanks needed a direct hit, or nearly so (depending on caliber of artillery), and obtaining such hits on not only moving, but armored, targets was usually too wasteful of artillery ammo. The specific characteristics of tanks were such that, as each generation of tanks became more heavily armored, more powerful weapons were installed, thus driving the armor vs. weapon contest into more weight and volume for guns and armor. The increasing power of guns meant that engagement ranges tended to increase. The guns needed ever higher velocities to get the flat trajectories necessary to get hits on hostile tanks, and the high striking velocity gave increased assurance that the armor could be perforated. The evolution of tanks resulted in a situation that almost the only other battlefield weapon the tank had to fear was another tank — only another tank had the weapon and armor needed to defeat it. The armor suite was designed to defeat line-of-sight cannon fire from other tanks, and was much thicker on the front which normally faced the enemy, with lesser amounts on the sides, and even less on the rear and top.

That has all changed. The (very short range, not very accurate) bazooka didn't change things much when it was introduced in 1942, but later, when its shaped charge was put on the front of a guided missile, the equation began to change. Yes, the missile advocates tend to be 20 years, or so, ahead of themselves in matching performance to hype, but they are introducing real technology advances. We now have a fire-and-forget, top attack capability, not just in missiles like Javelin, but in gun-fired projectiles such as STAFF. [At least, we did until STAFF was canceled after a very successful firing demo in September, 1997. I am relieved to note that more worthwhile causes for our money have been found — such as over \$1 billion to overhaul the Pentagon.]

The artillery, too, has changed. GPS, and other technologies, now allow the artillery to be far more accurate in knowing where it, and its targets, are located. The M483 ICM 155mm projectile has bomblet grenades in it which can put a hole in the top of a tank, and even a tanker's skull. [For some reason, the ability to defeat top armor is underplayed, in my opinion.] 155mm SADARM can defeat not just lightly armored vehicles [another case of understatement], but tanks.

Thus, I now see a major change coming in the dynamics of battlefield engagement. It will be [note future tense] possible, someday in the not-too distant future, for tanks to be decimated long before they ever get the lineof-sight needed to use their high-velocity, flat-trajectory cannons. This decimation can be by a combination of artillery fire, guided mortar rounds, crew-served missiles, aeriallydelivered munitions, and even tank guns fired by those smart enough to demand tank cannons which can fire both smart munitions and high-KE penetrators. So I don't see "...questioning the fundamental role of the main battle tank..." as being one of "...countless distracters..." I believe it may well be necessary for the survival of the 'tank,' even if its appearance, weapon suite, and specific battlefield role do change. The military likes to believe that tactics and strategy drive technology. Sometimes they do, sometimes they don't. What has happened is that long-in-the-works developments have finally matured, and there are very real threats to tanks that didn't exist before. Armor needs to both accept the changes and learn how to exploit them. Survival is at stake.

DONALD J. LOUGHLIN Bellingham, Wash.